IMPACT OF EMOTIONAL INTELLIGENCE AND PAIN TOLERANCE ON SELF - SUFFICIENCY TRAITS OF INDIAN ULTRA MARATHON RUNNERS: A MIXED METHODS APPROACH

A

SYNOPSIS

(THESIS PROPOSAL)

SUBMITTED TO

THE ICFAI UNIVERSITY, DEHRADUN

IN PARTIAL FULFILLMENT OF THE REQUIREMENT

FOR THE AWARD OF THE DEGREE OF

DOCTOR OF PHILOSOPHY
(Ph.D.)

IN

MANAGEMENT

BY

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2024

Candidate's Declaration

I, **Rajesh Wadhwa**, declare that the synopsis entitled, **"Impact of Emotional Intelligence and Pain Tolerance on Self - Sufficiency Traits of Indian Ultra Marathon Runners – A Mixed Methods Approach"** being submitted in partial fulfillment of the requirement for award of the degree of Doctor of Philosophy in Management under ICFAI Business School, The ICFAI University, Dehradun during the academic year 2024 - 25.

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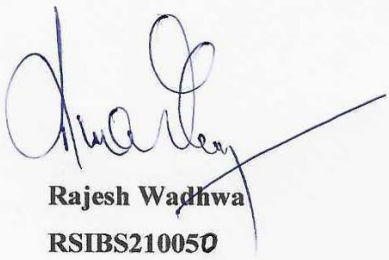
Signature -  **Date:** **Mar 2025**

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Paper Title	Impact of Emotional Intelligence and Pain Tolerance on Self-sufficiency Traits of Indian Ultra Marathon Runners: A Mixed Methods Approach
Similarity	4%
Paper ID	3418939
Total Pages	27
Submission Date	2025-03-20 14:17:13

Signature of Student

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Abstract

An Ultra Marathon is a foot race which is more than the standard marathon distance of 42.2 km and is usually set at 50 km, 100km or above. These races are usually conducted in natural settings like mountains, forests or deserts and runners have to face harsh climatic and terrain conditions to complete them. These events classify as **extreme sports**. Experiences of ultra-endurance athletes around the world have been of interest to the average person who can only imagine competing in such grueling events. Limited amount of research has been done on the psychological characteristics of ultra-endurance competitors. Psychological factors that affect responses to stressors and may contribute to ultra-runners' ability to engage in their sport include resilience, personality characteristics, and affective processing. There is also considerable evidence of **transference of the ultra-runners' traits to personal and professional lives**, many of whom have described it as **Life changing experiences**.

Past research indicates positive linkages between **resilience in handling the challenges that life throws at us like diseases, conditions like overweightness, professional and personal stress** and **physical pain**. Ultra-marathon runners were found to **discover their own inner self** through **emotional Intelligence** and its transference to the workplace and relationships. The implications of these findings suggest that Ultra marathon running is a sustainable strategy in 'Building People Resilience'. **Ultra-marathon runners are normal people living next door conducting their daily lives in an extraordinary manner which makes them remarkable**. They are highly resilient in dealing with the volatilities affecting them, leading to mental, physical, spiritual and societal wellness, thereby making **strident strides** towards boosting creativity and productivity that can dramatically reduce the burden on medical infrastructure, and lead to minimizing the carbon footprint per individual.

Notwithstanding the **harsh difficulties of training and competing for these events**, popularity of the sport has been increasing worldwide in the past few decades with maximum increases being in America, Europe, Canada, Australia, New Zealand. These regions of the world are developed, industrialized, having high per capita incomes with comfortable lives. **What then is propelling the widespread adoption of this very demanding sport**. On the other hand, in India the sport has been gaining popularity only in recent years. India, that is Bharat, has the world's youngest population and is the fastest growing major economy in the world and marching towards a declared 'Developed' status by 2047.

This study aims to find possible linkages between a resurgent Bharat and an expression of this nationalistic fervour in her citizens through a Mixed Methods approach using questionnaires and semi structured interviews employing 'Interpretative Phenomenological Analysis' (IPA) on the relationship between psychological constructs of emotional intelligence and pain tolerance in Indian Ultra marathon runners in their socio-economic context. Studies based in IPA focus on examining how individuals make meaning of their life experiences. A detailed analysis of personal accounts followed by presenting and discussing the generic experiential themes is typically paired with the researcher's own interpretation, which is an expression of double hermeneutics in practice. IPA draws upon phenomenology, hermeneutics, and idiography.

Based on prior research conducted in phenomenology, semi structured interviews have been

found to be most suitable for reaching to the depths of the minds of the research participants. It has been specifically stressed that these type of interviews as opposed to free flowing 'unstructured' in- depth interviews help to keep the interview on track with a view to obtain information keeping in mind the economics of time and mental freshness. Otherwise, the data generated in an interview can overwhelm the researcher which can impact analysis.

The sample for interviews will be done through purposive sampling as the interviews will be of relevance to only those who are passionately involved in ultra-running and those who are agreeing to participate in the interview process. Qualitative Research suggests a sample between three to six as sufficient for an IPA study. Besides, the eco system of ultra-runners is highly restricted and the idea of sitting through the interview itself can overwhelm some, besides, doubts about the whole process and its purpose could dissuade many of them. Notwithstanding, this study aims to send questionnaires to as many ultra-runners as possible through personal network of the researcher, posting on runners' groups, social media and snowballing and interview about ten runners, assuming 50% conversion rate.

While efforts will be made to obtain in person interviews, however, in the interest of economy of effort and travel costs, convenience of the interviewees, online / telephone interviews will be done. Notwithstanding the reach that technology offers us today, paper and pen will be a parallel and continuous backup.

The Researcher will follow the well-defined process of obtaining approval for the interviews from the University Institutional Ethics Committee and apprise the prospective participants of the bonafide purpose of the research and assure them of confidentiality and voluntary participation.

Keywords: Emotional Intelligence, Pain tolerance, Ultra marathon running, Phenomenology, Life experiences.

IMPACT OF EMOTIONAL INTELLIGENCE AND PAIN TOLERANCE ON SELF - SUFFICIENCY TRAITS OF INDIAN ULTRA MARATHON RUNNERS– A MIXED METHODS APPROACH

1. Introduction

Ultra - marathons are foot races run over distances longer than the standard marathon distance of 42.195 km (Knechtle, B; Nikolaidis, P, 2015). They can also be defined as time limited races lasting longer than six hours, thereby being distance or time limited events. The common initial distances in ultra-running are 50 / 100 km or 50 / 100 miles. However, distances in multiples of 7 or 14 are also common as they are factors of 42, being the standard marathon distance. Race Directors also choose distances depending on the measurement of a single loop or distance between two iconic locations, which may be identifiers of the event. However, there are no upper limits on distance or time that have been laid down. Race Directors and their teams painstakingly keep on curating ultra runs which may be 1000 km or more and some Races keep growing in distance and difficulty over the years. Ultra-Runners are often required to run **semi-autonomously** for long distances along marked trails in natural environments (International Trail Running Association, 2013) like mountainous terrains, forests, deserts, beaches or snowscapes and a mix of topography. On occasions, unpredictable weather like heavy rains, snow storms and sand storms can suddenly change the scenario and preparation of runners leading to large scale drop outs. Under such volatile and demanding situations, endurance runners have to espouse the idea of surpassing themselves (Simpson, Young, & Jensen, 2014) whenever on the trail.

Ultra – Runner athletes are also required to partially **support themselves for food and water** (Nicolas, 2022). Navigation on the trail, even though supported by physical markers like red ribbons, paint markings on rocks, natural and man-made landmarks, still has also to be partially self - supported over considerable stretches of distance. Technological aids like GPS receivers and GPS watches can complement the athletes' own cognition, courage to handle uncertainty and at times, being all alone in wilderness.

Ultramarathon running started in the 1980s, and its popularity has increased since then (Knechtle, 2012). It entails **coping with unanticipated environmental circumstances and intense physical and psychological fatigue**; demanding high levels of **mental toughness.** The successful completion of ultramarathons **requires adequacy in both of these capabilities** (Noakes, 2006), but there is relatively **little coverage of psychological aspects in the literature** (Micklewright et al., 2009, Roebuck, Fitzgerald, et al., Citation 2018). In particular, it is unclear whether ultra-runners possess any psychological characteristics that enable them to run ultra-marathons.

Researchers have found that ultra - athletes have to overcome extreme psychological and physiological stresses to complete an ultra - endurance event. The stressors could relate to but not limited to balanced energy intake during training and races, hydration, sleep deficit, blisters, chafing of body parts, gastro intestinal distress, anxiety, negative responses to stressors, intense fatigue, changing and unpredictable weather phenomenon and incremental unpleasant emotions with the progress of race (Smith, Walsh, & Dement, 1998, Bowen, Adams, & Myburgh, 2005; Knechtle, Enggist, & Jehle, 2005; Lane & Wilson, 2011).

Digital records show that the first Indian athlete to run an international ultra-marathon was in 2004. Subsequently, the first ultra - marathon was conducted in Bengaluru, India in 2007. Since then, many Indians have participated in Ultra-marathons in India and abroad. While participation in ultra - running events has seen an exponential growth world-wide over the last 30 years, however, to date there has been **no study on psychological traits of Indian runners**, viz, emotional intelligence, pain tolerance and self – sufficiency being some of them.

Pitfalls of running addiction/dependence and injuries due to over use and absence of adequate pre and post run exercises also need to be examined. **Irresponsible use of non-steroidal anti-inflammatory drugs (NSAIDS) has a potential of systemic disorders like Gastro Intestinal Distress (GID) which can actually become the reason for disruption in training and quitting (Meyer-Glitza et al., 2023) and it can overshadow the life changing benefits of ultra-marathon running.**

2. Research Problem

Conduct of ultra – marathons in India is a recent phenomenon for the past 18 years since 2007. The profile of participants world-wide has been from higher socio-economic strata of Society, holding high academic qualifications and leadership positions in Businesses and other professions. There is likelihood of linkages between professional demands in a VUCA world (Volatile, Uncertain, Complex and Ambiguous) world (Johansen, B., & Euchner, J.,2013) and the need to de stress for work-life balance, ultra-running being a stress release mechanism. Due to the fast growth of corporate eco system in India and the spirit of entrepreneurship, there are likely to be linkages between leadership positions and need to destress, ultra-running being one of them. Despite growing literature in this filed internationally, much needs to be discovered about the impact of this lifestyle sport on Indian Ultra athletes in their socio – economic, personal and professional context.

3. Theoretical Grounding

Self-determination theory (Patrick, H & Williams G. C, 2012) theorises the extent to which human behaviours originate from the self, based on intrinsic motivation. It provides convincing evidence of the the pivotal role of internally originated behaviour in well-being, morbidity and mortality. It is estimated that nearly 75% of all health care costs are attributable to chronic diseases resulting from behaviours such as drug abuse, tobacco use and exposure, poor diet, and **physical inactivity**. Lifestyle behaviours account for nearly 40% of mortality in industrialized nations and have been responsible for up to 2/3 of all cancers. Health behaviours are pivotal to well-being, health outcomes, and morbidity. Therefore, developing the science of health behaviour rigorously, can help in bringing about the desired change and its maintenance which is critical to prolonging the length and quality of life.

Self Determination Theory defines 'internalization' as the **process by which individual's behaviours become autonomously regulated and valued over time**. According to this theory, the least internalized form of regulation has its locus of control external to the individuals and they engage in such behaviours which could help them to gain some reward or recognition and to avoid negative outcomes. On the other side of the spectrum, the **most internalized form of extrinsic motivation** is integrated. These are motives for behaviours that are important to the person and are also consistent with one's other goals and values.

The theory addresses both facets, treatment of the person and the situational context in motivated behaviour because the social context has great relevance in supporting or thwarting autonomous self-regulation and the process of internalization in any given domain.

There are three psychological needs which have been identified as critical to support the internalization process and development of optimal motivation and personal well-being: -

(a) **Autonomy** is reflective of the need to feel that the individual is the originator of one's actions which can happen by choiceful and volitional decisions.

(b) **Competence** is conceptually similar to self-efficacy in social cognitive theory and reflects the person's need to feel capable of achieving desired outcomes.

(c) **Relatedness** satisfies the basic need in humans to be felt close to and understood by significant persons in their lives.

Extrinsic aspirations include goals like **wealth, fame, and image** that are **external to the self.** When individuals place primary emphasis on them, they experience lower levels of autonomy and relatedness leading to poorer physical and mental well-being and heightened health risk behaviours.

Intrinsic aspirations are reflective of valued goals **internal to the self** which include **meaningful relationships, personal growth, community work, and, importantly, health.** When individuals place stronger emphasis on intrinsic aspirations, they experience positive outcomes including greater autonomy and vitality.

4. Literature Review

Studies on ultra - running since 1947 CE till 1997 CE were scanty and only 800 records were added to the data base. However, from then onwards till 2007 CE, on an average 800 records were added to the data base every five years. These studies covered various psychological aspects of ultra-marathon runners, which included motivation, mental toughness and self-efficacy, emotional intelligence : stress responses (Gastro Intestinal Stress, Pain tolerance, sleep deprivation), changes of mood and cognitive performance : Night time Ultramarathon, influence of psychological factors on completion of the race (not withdrawing); obsessive passion, meaningful and valuable experiences, intrinsic motives, social interactions to interpersonal relationships, ultrarunning spirituality and life-changing experiences.

Berta et al (2024) studied the association between **motivation and diet** quality in **runners aged 60 years and older.** The study was under the aegis of WHO developed Global Action Plan for prevention and control of non-communicable diseases. This action plan takes a special interest in **modifying lifestyle**, promoting among other factors, **physical fitness** as well as **healthy diet**, because of their **demonstrated benefits in providing quality life** to older persons (OP). The study employed a **cross-sectional observational analysis,** which was applied to a **probabilistic sample of OP** who practice running. The study concluded that **Motivation** was **positively associated with die**t in OP who practice running, especially for the motivation subscales **Weight Concern, Personal goal achievement-Competition, Recognition and Health orientation**.

Hasman (2023) in a case study of an individual ultra-runner, poses the question as to why Ultrarunners endure extreme athletic fatigue, boredom, gastrointestinal distress, pain, and injury. They run through day and night, through snow, wind, rain, fog, and extreme temperatures and altitudes. What type of brain chemistry allows them to reach these athletic extremes and enjoy it enough to keep doing it? The author has brought out that studies show that ultrarunners are psychologically different from other types of athletes. There are plenty of lessons from ultrarunners' mindset which can be applied to our

daily life. It teaches us patience, grit, determination, and how to handle situations when they don't go as planned. **What we do on the trail influences how we deal with situations in the real world.**

A thesis titled **"Transitioning through injury: A Phenomenological Approach for Ultra-Runners"** submitted by Leanne Hall (2023) explored the embodied lived and living experiences of ultra-runners who had experienced injury, providing unique insights and knowledge about the intersection between corporeal subjectivity and the various discourses that these athletes resist and submit to. The findings in this thesis provide an important contribution to the existing research which **deepens our understanding of how an injury can unlock past pain and traumas** for athletes. This can lead us to a better understanding of how ultra-runners and endurance athletes more generally **respond to and heal from pain and injury.**

Denise Howard (2023) while studying Recovery Perceptions and Techniques of Ultramarathon Runners tried to find answers to the questions, which **recovery techniques do ultrarunners use most**? and **how long** do athletes take to **recover**? The results had mixed support across genders and running experience. However, **sleep and hydration** were the **top techniques** used for recovery, with **alternative therapy** and **contrast therapy** the **least used techniques**. The **average duration of recovery** was **12 days.**

Weich et al. (2022) conducted research on **boredom among ultra-endurance athletes**. They assessed whether this leads to an action crisis during their race. They defined Boredom as an **"aversive state that occurs when we are not able to successfully engage attention"** and being bored is accompanied by a "high degree of mental effort expended in an attempt to engage with the task". They contend that Ultra-endurance running is a type of sport that, for outsiders, seems to exhibit almost ideal conditions for inducing boredom as these events are of long duration and conducted in remote environments where change in external stimulation can be quite small and gradual. Despite this ostensibly high potential for inducing boredom, the popularity of ultra-endurance competitions has risen considerably within the last 25 years. It is quite possible that it might actually be **offering an escape from boredom and pressure of mundane work life,** thereby becoming a **source of meaningful and valuable experiences.**

Nicolas et al. (2022) in their paper evaluated the involvement of **Emotional Intelligence (EI) in recovery stress states**. Extreme situations are demanding and challenging. They impose exceptional physical or psychosocial circumstances that require adaptive responses which can overwhelm personal resources. A mountain ultra-marathon (MUM) race is one of the most extreme sporting situations, during which athletes are exposed to a **variety of stressors** for extended periods over **long distances and dangerous terrain** with changing altitudes in an **uncertain and risky environment**. Exposure to these stressful environmental and climatic conditions tends to push participants to draw on their own resources to perform beyond their ordinary limits. **Recovery was facilitated by proactive and self-initiated activities**, and that high trait EI was linked to higher scores of recovery.

Valentin et al (2021) studied enablers and barriers in ultra-running, drawing comparisons between male and female ultra – runners, to understand the reasons for considerably lower female participation. They employed a mixed methods study with on-line questionnaires followed by individual semi-structured interviews with 13 Scottish respondents, seven being females. Findings suggested similar experiences for both the genders, the main barriers being training time. Further, negotiation – efficacy was instrumental for factoring in time around work and family commitments. Historical influences of traditional gender roles of looking after the family could be responsible for lower female participation. The two strongest motivators for women were general health and psychological coping.

Rachel et al (2021) qualitatively explored the syndrome of **Relative Energy Deficiency in Sport (RED-S)** which leads to impaired health and performance that occurs as a result of low energy availability (LEA). The researchers recruited Twelve endurance athletes (female n=10, male n= 2;) through Purposive sampling to elicit **information rich cases**. The population was England n=11, North Ireland n = 1. The current findings highlight the **crucial role of nutritional and psychological support** (e.g., dieticians and mental health professionals) for facilitating long-term "recovery" progress from RED-S.

Gross (2021) conducted qualitative research to examine various dimensions of **running addiction** in dedicated recreational runners, through an **ethnographic research methodology.** A sample of 50 Estonian runners, 16 women, 34 men, based on **purposive maximum variation** sampling participated in **semi-structured interviews** that lasted between 30 minutes to two hours and were duly recorded. Additionally, notes on runners' blogs and participant observation during running events were used to build on **qualitative data.** This paper has advocated an **ethnographic perspective** to detect early symptoms of running addiction, in dedicated recreational runners.

Alschuler et al (2020) conducted a research to explore the relationship that ultramarathon runners' pain experience and **coping mechanisms** have with their **race performance**. A prospective observational study during three 250 km (155 mi), 6 stage ultramarathons was conducted, N = 204 participants (age 41.4±10.3 y; 73% male). The study concluded that although increased pain intensity and pain interference was found in all multistage ultramarathon runners, **successful event completion was significantly associated with less maladaptive pain coping**. Training in coping with pain may be a beneficial part of ultramarathon preparation.

Roebuck et al (2020) studied the **psychological characteristics** associated with ultra-marathon running through an exploratory study. The team of researchers studied the psychological factors that affect **responses to stressors** that contribute to ultrarunners' ability to engage in this extremely demanding sport. They studied **resilience, personality characteristics, affective processing**, **emotion regulation** abilities and physiological responses to emotionally negative stimuli. For this, the researchers recruited **20 each ultra-runners and non-running controls** who completed questionnaires on standard Scales of resilience, emotion regulation and multidimensional personality. The results suggest that **ultrarunners are psychologically more resilient, more likely to regulate emotions strategically for positive reappraisal**, display **smaller physiological responses to emotionally negative stimuli** and that **they differ from non-runners and general population in their responses to and coping with stressors.** The researchers **recommend further research into specific psychological traits.**

Harman et al. (2019) studied the influence of **social interactions and interpersonal relationships** on ultra-runners' race experience. The authors found that even though, most ultra-marathoners train alone, they are not the solitary kind and do form strong social networks for seeking **moral support, counselling, training tips and strong affiliation**. These **social interactions become more pronounced in longer races** and conditions become fertile ground for meeting fellow runners, medical staff, support team and cheering public. Forming groups is frequently a sound strategic decision as it allows them to leverage the strengths and skills of different team members for sharing resources, navigating desolate stretches in deserts and forests or fetching medical help for an injured/sick athlete. The study results suggest that **ultra-running is more socially constructed** and undermine the commonly held perception that it is a solitary sport developing an **erroneous image of solitary individualism.**

Goddard et al (2019), conducted an exploratory study **on mental toughness (MT)** with a sample of forty-two **British** athletes who had competed in the Marathon des Sables (MdS) ultra-endurance event.

They were administered the Questionnaires on Sport Mental Toughness (SMTQ) and Personality Inventory, to measure the five major domains of personality. These results were benchmarked against the general population and they showed a distinct ultra-endurance athlete profile characterized by significantly higher levels of extraversion and openness to experience. Additionally, the sample's SMTQ scores were higher than the normed sample of athletes from multiple sports.

Portelli (2018) investigated the **lived experiences of ultra-trail mountain runners to make meaning of the reasons** why they felt the need to run vast distances over mountain trails and endure the extreme hours and pain to reach their goal. To understand why ultra-runners feel compelled to stretch their limits, **lived experiences were deemed the best option, as depth, not aggregates best suited the research question**. Three experienced ultra-trail runners were recruited and in-depth interviews were conducted to answer the exploratory question: "Can you describe your experiences when running a mountain ultra-trail?". Thematic analysis (Braun & Clarke, 2006) was used to analyse the data collected. **Significant findings included the disassociation of the mind from the body,** where the participants even described a feeling of **war between the two**. The participants described the **ultra as a learning experience comparable to the journey of life.** Being **positive and happy for small achievements** like reaching a peak, arriving on time at the checkpoints, seeing the sunrise after a night running. Appreciating their capabilities and **feeling gratitude for the privilege of having them**. They also feel that **lessons learnt during training and the race itself will be of value in all aspects of life**.

Díaz-Gilbert (2018) in the article, 'The Ascetic Life of the Ultrarunner', describes today's ultrarunners as literal ascetic athletes who engage in **extreme, meaningful bodily experiences and practices very similar to the ascetics**. According to author, **Ultrarunning has a distinct spiritual dimension** that lends itself to solitude and reflection, and is a kind of **embodied spiritual practice** that is "ultrarunning spirituality." Achieving the feat of running such gruelling distances requires **discipline, training, and a love of exercise**.

Watkins, R. (2017) in the Doctoral dissertation, "The Far Reaches of the Mind: **Psychological Experiences That Contribute to Willpower and Perseverance of Runners** During a 100-Mile Ultramarathon" has represented it as a personal contribution to the ultrarunning community**.** The author's own ultrarunning experiences were **a source of personal growth that expanded her understanding of herself, her mind and body, and the power of pushing past what seems impossible.** The goal of this study, was to accomplish two objectives**:** To **qualitatively** examine the **role of the mind with respect to ultrarunning and** understand the causes and functions of **perseverance and willpower** specifically**,** as they relate to **enduring a range of physical and psychological stressors.** Ultrarunners (N=6) were recruited through contacts of the researcher using the snowball sampling technique. **Five different types of attitudes** emerged as themes: **confidence; Positivity, acceptance/ normalization anticipation; and gratitude.** The Clinical Implications and Applications offer two important takeaways: first, that **these attitudes and strategies can be intentionally applied to stressful situations**, and second, that using a combination of them may be necessary. The findings from this study could inform a more **intentional and focused plan for psychologically preparing for an ultramarathon**.

Hanson et al. (2015) carried out a study to compare motivations of athletes running distance races less than the **ultramarathoners** and found that the latter were less concerned about health orientation and weight concerns but assigned **higher values on life meaning and intrinsic motives**. Full marathoners were driven more by achievement of personal goals than ultramarathoners.

Evelyn (2015), conducted a **person-centred ethnography research study on a group of former heroin addicts turned ultra-marathon runners**. They were four men, from the ages of mid-20's to mid-30's. French, Indian, and American, primarily identifying as "American" in their dispositions by

virtue of spending childhood in America. The researcher conducted **free form, open-ended, and recorded interviews** - at cafes, houses, stores, in tents, at race sites, and cars to and from events. The researcher accompanied the research participants as an observer and a crew member, conducting interviews before and after the races. The **research findings suggest explicitly comparing running ultramarathons to the feeling of being high,** these runners find temporary relief through the ephemeral suspension of the demands of both life and the embodied expectations of **sober moral transformation**. The most reported and consistent reason given for running was because of what running does for and to them: it provides relief.

Holt et al. (2014) conducted an **exploratory study** to examine individuals' experiences of running an ultramarathon, nearly two decades after it had become popular as a mass participation sport in the 1990s. This study chose a phenomenological approach because it is **designed to examine how individuals make sense of life experiences**. The sample size was set, a priori, at six which was consistent with the IPA recommendations. Five participants were male, and one female. **All were white, educated, middle-class professionals who resided in Canada**. The findings were that the **athletes handled the race stressors, one at a time in manageable sections**. The finishers gave the sense that **completing this race was a major life experience**. Further, the study indicated that **ultramarathon running may provide opportunities for psychological growth**.

A consolidated summary of the above literature review is given **Table 1**

5. Research Gap

5.1 While conducting extended literature review on various psychological aspects of Ultra marathon running, many studies have pointed towards spirituality, holistic living, attitude of gratitude, life meaning, life changing experiences, inculcating discipline, enhancing outdoor environment, life-style changes which positively impacted participants' personal and professional lives.

5.2 Some of these studies were conducted on small samples and used **deep qualitative techniques like in depth interviews, Interpretive Phenomenological Analysis (IPA)**, follow on Focus Group Discussions, essay writing by participants about their race experiences, which require knowledge and deep commitment by runners and researchers both. **This depth of academic expertise is not yet discernible in the Indian eco system.**

5.3 The research gap also appears in the ultra-running geographic regions which are essentially centred on Europe, America, Canada, Australia and New Zealand runners. These are developed, affluent and industrialized countries and the runners are educated, white and highly placed in the work hierarchy, some of them being CEOs of Companies. While in India, Ultra marathon races have started in 2007 and with India's growing stature as a military and economic power with improving incomes and standards of living, there is likely to be a connect between mental, physical, spiritual and individual wellness of India's citizens which can be a contributing factor to India's declared goal of becoming a developed nation by 2047.

5.4 There has been **no research conducted on Indian Ultra marathoners** so far in their socio – economic environment which could throw any light on psychological constructs like resilience, mental toughness, **pain tolerance**, **emotional intelligence, self-sufficiency** or spiritual aspects of life related to lived experiences during ultra-runs.

6. Research Questions

6.1 What is the level of Emotional Intelligence of Indian Ultra Marathon Runners.?

6.2 What is the level of Pain Tolerance of Indian Ultra Marathon Runners.?

6.3 What is the relationship between Emotional Intelligence and Pain Tolerance on Self – Sufficiency traits of Indian Ultra Marathon Runners.?

7. Research Objectives

7.1 To Know the Level of Emotional Intelligence on Self – Sufficiency traits of Indian ultra-marathon runners.

7.2 To Determine the level of Pain Tolerance on Self – Sufficiency traits of Indian ultra-marathon runners.

7.3 To examine the relationship between Emotional Intelligence and Pain Tolerance on Self – Sufficiency traits of Indian ultra-marathon runners.

7.4 To Study the challenges faced by Indian Ultra Marathon Runners affected by Emotional Intelligence, Pain Tolerance and other uncertain events in their personal and professional lives.

8. Conceptual Framework

As per Creswell, 2014, among the existing worldviews, one of them dominantly influences the practice of research. The term 'Worldview' means a 'basic set of beliefs that guide action' (Creswell, 2014). The author sees these worldviews as general philosophical orientations about the world and the perspective of the researcher about the study. The four World views and their essential features are: -

(a) Post positivism – Determination, Reductionism, Empirical observation and measurement and theory verification.
(b) Constructivism - Understanding, **multiple participant meanings**, social and historical construction, **Theory generation**.
(c) Transformative – Political, **Power and justice oriented**, Collaborative, **Change – oriented.**
(d) Pragmatism – Consequences of actions, Problem – centred, Pluralistic, **Real-world practice oriented**.

Researchers' personal training and experiences also influence their choice of approach (Creswell, 2014). In the present instance the Researcher is an Ultra – Marathon runner and is deeply immersed in this phenomenon since 2013, which has been a driving force to explore it further.

The main purpose of the study is to know the **meanings that runners attach to their lived experiences (**Portelli, 2018) of running gruelling ultra-marathons in remote natural locations, possibly tackling wild life and isolation, navigating themselves often in sleep deprived states, handling race induced medical conditions like Gastro-intestinal distress, relationships at work and home (Valentin et

al, 2021). The training loads are intense on time and energy, besides demanding consistency throughout the year. What then is driving the Indian Ultra marathon runners, is the moot question.

9. Research Hypotheses

In view of the underlying Self Determination Theory, the literature review, and the researcher's own personal grounding in Ultra running, the following hypotheses are proposed for Research Objective No 3: -

(a) **H1: Indian ultra -** marathon runners have high Emotional Intelligence in sustaining the uncertainties of Ultra running in the Indian socio-economic context.

(b) **H2: Indian ultra –** marathon runners have the requisite Pain Tolerance to sustain the long and hard training sessions and during competitions.

(c) **H3:** The interaction between Emotional Intelligence and Pain Tolerance has a balanced impact on Self- Sufficiency traits of Indian Ultra – marathon runners.

(d) **H4:** There is transference of lessons learnt during training and the ultra - race itself to various aspects of life.

10. Research Methodology

It is proposed to conduct a Mixed -Method study. Questionnaires based on standard scales of emotional intelligence, pain tolerance and self-sufficiency, suitably adapted to this study will be administered electronically to ultra-runners through running groups, social media, personal contacts of the researcher, word of mouth and snowballing linkages through other runners. These questionnaires will also be instruments of consent for the semi-structured interviews that will be conducted depending on the responses in them. The interviews will be analyzed using the Interpretative Phenomenological Analysis (IPA) technique which was first put forth by Husserl (1931), is now well established with work done by scholars like Smith, Larkin, Osborn (2009) and Creswell (2013). This technique has the potential to generate rich and thick descriptions of embodied experiences of participants in unique situations, in this case being ultra-runners.

10.1 Research Design. Phenomenological research design is proposed to be used in this study which emanates from Philosophy and psychology in which the researcher describes embodied experiences of the participants related to the phenomenon under study. It involves conducting interviews (Giorgi, 2009; Moustakas, 1994) with the participants and the researcher is trying to make a meaning of what the participants meaning is, thereby this technique involves **double hermeneutics**. The **researcher's personal involvement** and experiences play a major role in this method called '**Interpretative Phenomenological Analysis'** (Smith, Osborne, 2007). Through the interpretation of these **in-depth interviews** of all the participants undergone similar phenomenon, the researcher tries to find commonality / multiple views that emerge.

10.2 Semi – Structured Interviews. Based on prior research conducted in phenomenology (Smith, Larkin, Osborn, 2009, Smith, 2011, Wengraf 2001), **semi structured interviews have been found to be most suitable for reaching to the depths of the minds of the research participants**. It has been specifically stressed that these type of interviews as opposed to free flowing 'unstructured' in-depth

interviews help to **keep the interview on track** with a view to obtain information keeping in mind the economics of time and mental freshness. Otherwise, the data generated in an interview can overwhelm the researcher which can impact analysis.

10.3 Interview / Survey Location. The ultra-runners in the study are expected to be interviewed on line / face to face at race locations while participating in ultra-marathons, places of their posting / normal residence pan India.

11. Sample, Sampling Size and Sampling Technique

11.1 Sample. A list of accomplished Ultra Marathoners in India will be compiled based on personal linkages of the Researcher and referrals/snowballing. They will be those who have achieved personal excellence through international and national records or participated in ultra runs of national importance like celebrating year of 'Naari Shakti' – 2024 during the NCC Republic Day Camp / Asia Oceania International Ultramarathoners Association (IUA) 2024 - 24 hr competition in Australia to name a few. The sample for the research will comprise of Indian ultra-runners, agnostic of gender, who have completed at least one competitive ultra-marathon anywhere in the world in the past two years effective 01 Jul 2024. They will be deemed to be Indian if they are holding Indian citizenship as on the date of the race and are ordinarily resident in India. A list of 21 probable interviewees (Anonymous) is placed at Table 1.2, some of whom may consent to fill the questionnaire and be interviewed after fulfilling the criteria.

11.1.2 **Sample Size**. While authors in the field, state that there is no fixed sample size as **depth of experiences rather than aggregates** are important, a sample size between three to ten, based on past studies has been considered adequate for the study, (Creswell, 2014; Smith and Osborne, 2007).

11.1.3 **Sampling Technique**. A **purposive sampling technique will be employed** to recruit runners who could be interested in participating in the research. This list will include those living anywhere in India and having completed at least one competitive Ultra Marathon in the past two years anywhere in the World. They will be contacted through personal contacts of the researcher, listings on Running clubs, listings on international ultra-running websites, word of mouth and referrals / snowballing.

12. Research Tools Used

Google forms will be used to introduce the rationale of the research, ethical statement and consent to participate in research. The form will collect demographic data about ultra-runners to build the base for semi structured interviews. The choice of language and mode of interview will be obtained through this form with priority given to the participant.

12.1 **Recording**. The interviews will be recorded on digital audio / video recorders / telephones and virtual meeting platforms. These will be held in password protected files in the researcher's laptop and SSD drive as a backup. The only other person holding this data will be the Research Guide assigned to the Researcher. Notes with the traditional paper and pen will also be made in addition as the interviews proceed to aid in recall and cater for possibility of technical failures. For transcription of interviews, which is a very time-consuming procedure, (Seidman, 2006), it is intended to take assistance of technology like 'transcribe and dictate' features of MS word, Whisper by Open AI, Otter AI etc. The transcriptions will be analysed by the researcher through a double hermeneutics procedure. Qualitative software like NVivo / MAXQDA will be used for interview transcriptions and analyses.

13. Expected Outcome of the Research Work

The rich and thick interviews are expected to generate diverse views which will need **deeper meaning making**. In the literature reviews and interviews conducted by the Researcher so far, novel findings have emerged like linking **deep emotions of crying in thanks giving to God** on the trail, coming out of darkness, **giving up shopping**, improving relationships with companion and one's own self. Concepts like '**beautiful suffering'**, **self-discovery**, transference of experiences made in Ultra Endurance training and racing to other areas of life, **very good time and energy management, powerful loop of positive reinforcement**: adult identity formation, spiritual growth, **life plan**, a road less travelled—and it is a road of passion, intrinsic regulation, unified and purposeful whole (Tatjana Bill, Roberta Antonini Philippe, 2023).

14. Proposed Chaptalization

Chapter 1 – Introduction. This chapter will introduce the technical details of the topic and its relevance to the field of Management to the Evaluation Committee members.

Chapter 2 – Literature Review. A secular literature review across data bases employing various methodologies will be presented. The main data bases searched were as follows: -

(a) Google Scholar

(b) Proquest

(c) Clarivate / Taylor and Francis

(d) Pub Med

(e) Open Access Theses and Dissertations (OATD) accessed through website of "Netaji Subhash National Institute of Sports".

(f) Scopus

(g) Science Direct

Chapter 3 – Research Gap.

Chapter 4 – Research Methodology. A brief and compelling justification for use of qualitative research methodology of Interpretive Phenomenological Analysis (IPA) and specific research methods will be given in the beginning of the chapter.

Chapter 5 – Findings and Discussion.

15. Proposed Month-Wise Plan of Work and Targets to be Achieved

S. No.	Activities	Month – Year								
		Dec 2024	**Mar 2025**	**Mar 2025**	**July 2025**	**Oct 2025**	**Nov 2025**	**Dec 2025**	**Jan 2026**	**April 2026**
1.	Thesis Proposal defence									
2.	Extended Literature Review									
3.	Interview Questionnaire designing									
4.	Pilot testing and refinement questionnaire									
5.	Data collection									
6.	Data transcription & preparation									
7.	Data analysis & Results									
8.	Report writing: Chapter1 & Chapter 2									
9.	Report writing: Chapter 3 & 4									
10.	Thesis Writing, Publications and Other Requirements									
11.	Thesis Submission									

Table 1: *List of Prominent Studies*

EXTENDED LITERATURE REVIEW - 2020 – 2025

S. No.	Title	Author / Year	Methodology/ Population/	Findings & Discussions
1.	"Female Runners' Perspectives of Coping with Relative Energy Deficiency in Sports (RED-S) Symptoms Through Instructor-Led Yoga (Doctoral dissertation, Walden University)."	Gunnoe, A. R. (2025).	**Methodology** **Qualitative** Methodology **Population** – n = 8 between 27 – 50 yrs. **Sampling** – Convenience sampling. Members of the Facebook Community Group "Girls That Run".	**Results** 11 themes were generated by this study. The first three pertained to RED-S knowledge, Running and Yoga experiences. Four themes pertaining to physical, mental, social and emotional benefits. One to RED-S symptoms and interventions. The final three were physical, mental and integrative coping strategies.
2.	"Runnability: A Scoping Review"	Tegart, A.D.; Schuurman, N.; Harden, S.R. MDPI, Basel, Switzerland. Published: 7 January 2025	**Scoping Review** methodology. Population N=102 studies which were reviewed by a Committee of Authors.	**Overall, green spaces are preferred**. **no consensus on the optimum surface for all runners**.
3.	"Beyond the Finish Line Media Representations and Identity Formation of Ultra-Runners in Documentaries Keywords: ultra-running, extreme sports, media representations, identity formation, documentaries, critical discourse analysis, multi-modal analysis"	Sarah Patsalidou Malmo University Media and Communication Studies : Culture, Collaborative Media and Creative Industries. Oct 2024	**Methodology** Qualitative Approach A **crossover study** between **sports and media studies.** Sample – Five documentaries between 2014 to 2020.	**themes explored** **Visual aspects** include **rural landscapes** **Aural elements** feature **nature sounds**.

4.	"Sleep deprivation and recovery: **Endurance racing** as a novel Model"	Dwayne L. Mann, Cassandra L Pattinson, Alicia Allan, Liam St Pierre, Sally Staton, Karen Thorpe, Kalina Rossa, Simon S. Smith. Wiley 2024	**Methodology** **Survey method** was used to determine **individual sleep periods** via **actigraphy**. **Sample** N=24) athletes using convenience sampling.	cumulative sleep debt at race completion, Measures of sleep deprivation indicate that **sleep debt** was extreme and did not recover to pre-race levels.
5.	Athletic identity and discretionary effort at work"	Rob Lion, Tyler Burch and Alex Bolinger 2024	Quantitative Method 1,079 respondents (75 adult employed Ultra marathoners within this population).	Results suggest that athletic identity indirectly influences employee discretionary work effort through higher behavioural self-control and a more internal locus of control. employees who engage in regular physical activity outside of work may actually be less willing to exert extra effort at work (Pronk et al., 2004).
6.	"On the Re-Alienation Experiences of the Amateur Runners in Istanbul"	Burak Polat & Mehmet Serhan Tezgeç Athens	**Qualitative Methods** 33 amateur runners	running as a recreational activity strengthens individuals' connections with themselves, nature, their social environment, meaning, and values.

		Journal of Sports - Volume 11, Issue 2, June 2024 – Pages 119-136		**individual resistance against the commercialized sports** culture, in other words, to **take a rebellious stance**. experience of alienation is suppressed by running instead of eliminating alienation altogether or creating an escape space for the person.
7.	"Personality of Marathon Runners: A Narrative Review of Recent Findings"	Lorin Braschler, Mabliny Thuany, Claudio Andre Barbosa de Lira, Volker Scheer, Pantelis T. Nikolaidis, Katja Weiss, Beat Knechtle 2024	This study was conducted as a narrative review according to a predefined search strategy.	individual psychological profile of marathon runners characterized by a strong sense of vigour, self-sufficiency, intelligence, introversion and low scores in anger, fatigue, tension, and depression. prevention of depressive symptoms, especially in breast cancer survivors. large-scale studies comparing personality differences with regard to sex, age, performance, and other types of sport.
8.	"Exercise addiction: A narrative overview of research issues"	Aviv Weinsteina and Attila Szabob Taylor and Francis	**Methodology** **Narrative Overview synthesis**. N-63	**Assessment of Exercise Addiction** Regular exercise positively affects physical and mental health. It is still not evident whether EA is a behavioural addiction or belongs to the obsessive-compulsive spectrum.
9.	The Psychological Indicators of Success in Ultrarunning - A Review of the Current Psychological Predictors in Ultrarunning Systematic Review	Owen R. Thornton Sophia Ly Isabella Colón Hunter Cole Wenjun Li	Mixed Approach	Successful ultramarathoners had higher levels of self-efficacy, mental toughness, emotional intelligence, and lower mood variability.

		2023		
10.	"The importance of landscape during long-distance running activity"	Agata Gajdek Idalia Kasprzyk Bernadetta Ortyl 2023	Quantitative research was conducted in the form of an anonymous on-line survey. N=322, M=68%	new running routes support runners during their exertion. For runners, both women and men, irrelevant factors were award, cost, charity, as well as competition. The choice of the run was guided by the landscape (76%) and as many as 66% of the respondents always pay attention to the landscape during the run.
11.	"Transitioning through injury: A **Phenomenological Approach** for **Ultra-Runners"**	Leanne Hall	**qualitative meta synthesis**	**repositioned the injury experiences of ultra-runners into an embodiment framework**. **understanding of how injury has the potential to unlock past pain and traumas** for athletes. **respond to and heal from pain and injury**
12.	"Recovery Perceptions and Techniques of Ultramarathon Runners"	Denise Howard November 2023	**Methodology** **mixed method design**. Population 91	Most runners indicated they used **specific recovery technique.** **Females** were **less likely to** use **massage**, and less likely to use **post-race nutrition.** **More experienced** ultrarunners were **more likely** to use **cold water** therapy. . **Experienced older male runners took longer to**

				recover. **Older female** participants **did not use new techniques.**
13.	"A new temporal framework for the **passionate engagement journey of ultra-endurance athletes: A qualitative investigation"**	Tatjana Bill, Roberta Antonini Philippe Institut des Sciences du Sport, Faculte´ des Sciences Sociales et Politiques, Universite´ de Lausanne, Lausanne, Suisse, Switzerland	**Qualitative Approach**	**"natural" inclination** towards endurance sports The social component plays a **crucial role** in the stories of UE athletes. realization that **experiences** made in UE training and racing **apply to other areas of life**. Athletes report on **magical moments** in the **wilderness**, on **encountering nature´s beauty** and experiencing it in a new way. **adaptation of living conditions** **powerful loop of positive reinforcement.** an **antidote and a compass for navigation in the post-modernist and post-industrial world.**
14.	**"Negative self-talk** in runners: **Emotional intelligence** and perceived stress as explanatory factors"	Borrajo, E., Calvete, E., & Urquijo, I. (2023).	**Qualitative Approach** N = 1071	self-talk **correlated negatively with all factors of emotional intelligence, positively with perceived stress** and **evaluation of others' emotions.** importance of **emotional processes** as **potential adaptive strategies** in **stressful situations** that **generate negative self-talk.**

				The results highlight the importance of **identifying one's own emotions** as a relevant aspect in the psychological management of runners, .
15.	"Exercise-Induced Gastrointestinal Symptoms in Endurance Sports: **A Review** of Pathophysiology,Symptoms, and Nutritional Management"	Ribichini, E., Scalese, G., Cesarini, A., Mocci, C., Pallotta, N., Severi, C., & Corazziari, E. S. (2023).	Qualitative Approach	**Gastrointestinal Symptoms during Exercise** occurrence of GI symptoms that can affect the athlete's physical performance and **psychophysical well-being.** An estimated **30–90% of endurance athletes report experiencing GI symptoms** during exercise. **diet is perhaps the principal one and should be personalized and planned by experts** to **avoid self-managed diets**.
16.	"Mental Health in Ultra-Endurance Runners: A **Systematic Review"**	Thuany, M., Viljoen, C., Gomes, T.N. et al.	**qualitative or quantitative** approaches.	The prevalence of **mental health issues** among UER ranged between 32.0% and 62.5% for **eating disorders**, 11.5% to 18.2% for **exercise addiction,** 18.6% for **depressive symptoms**, and 24.5% for **sleep disturbance. Exercise addiction was not related to weekly volume,**
17.	"Ultra-Mindset – Lessons from Ultrarunners"	Alexa Hasman Uphill Athlete January 23, 2023	Case Based Methods	**Key Psychological Traits of Ultrarunners** **lower response rate to negative stimuli**. Ultra-endurance athletes **score higher than an average person on openness to risk and experience-seeking**.
18.	"Emotional Intelligence in Ultra-Marathon Runners:	Michel Nicolas,	**Mixed Approach**	

	Implications for Recovery Strategy and Stress Responses during an Ultra-Endurance Race."	Marvin Gaudino, Virginie Bagneux, Gregoire Millet, Sylvain Laborde and Guillaume Martinent		improve pre-competition mental preparation. **efficiently manage their resources throughout the race**. preserve physical and psychological resources throughout the race. High scores of trait Emotional Intelligence
19.	"Enablers and barriers in ultra-running: a comparison of male and female ultra-runners"	S. Valentin, L. A. Pham & E. Macrae 2021	**Mixed Method Approach**	Similar experiences among male and female ultra-runners. The **main barrier was training time**. Female participation increased
20.	"Pain Is Inevitable But Suffering Is Optional: Relationship of **Pain Coping Strategies** to Performance in Multistage Ultramarathon Runners"	Alschuler, K. N., Krabak, B. J., Kratz, A. L., Jensen, M. P., Pomeranz, D., Burns, P., ... & Lipman, G. S. (2020).	Mixed Methods Approach	increased pain intensity and pain interference in all multistage ultramarathon runners,

Bibliography (APA format)

1. Alase, A. (2017). The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International journal of education and literacy studies, 5*(2), 9-19.

2. Alschuler, K. N., Krabak, B. J., Kratz, A. L., Jensen, M. P., Pomeranz, D., Burns, P., ... & Lipman, G. S. (2020). Pain is inevitable but suffering is optional: Relationship of pain coping strategies to performance in multistage ultramarathon runners. *Wilderness & Environmental Medicine, 31*(1), 23-30.

3. Bill, T., & Philippe, R. A. (2023). A new temporal framework for the passionate engagement journey of ultra-endurance athletes: A qualitative investigation. *Plos one, 18*(11), e0293864

4. Borrajo, E., Calvete, E., & Urquijo, I. (2024). Negative self-talk in runners: Emotional intelligence and perceived stress as explanatory factors. *Psychology of Sport and Exercise*, *70*, 102545.

5. Boudreau, A.L., & Giorgi, B. (2010). Journal of Phenomenological Psychology; Atlantic Highlands Vol. 41, Iss. 2, (2010): 234-267. The Experience of Self-Discovery and Mental Change in Female Novice Athletes in Connection to Marathon Running

6. Bowen, R. L., Adams, J. H., & Myburgh, K. H. (2006). Nausea and high serum osmolality during a simulated ultraendurance adventure race: a case-control study. *International Journal of Sports Physiology and Performance*, *1*(2), 176-185.

7. Braschler, L., Thuany, M., de Lira, C. A. B., Scheer, V., Nikolaidis, P. T., Weiss, K., & Knechtle, B. (2024). Personality of marathon runners: a narrative review of recent findings. *EXCLI journal*, *23*, 441.

8. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77-101.

9. Brick, N., MacIntyre, T., & Campbell, M. (2014). Attentional focus in endurance activity: new paradigms and future directions. *International Review of Sport and Exercise Psychology*, *7*(1), 106-134.

10. Cecale, C. E. (2015). *Moral Modes of Attention: Transformation of the Self, From Addict to Ultramarathon Runner*. University of California, Los Angeles.

11. Cooper, R., Fleischer, A., & Cotton, F. A. (2012). Building Connections: An Interpretative Phenomenological Analysis of Qualitative Research Students' Learning Experiences. *Qualitative Report*, *17*, 1.

12. Creswell, J. W., & Creswell, J. D. (2014). The selection of a research approach. *Research design: Qualitative, quantitative, and mixed methods approach*, *2014*, 3-24.

13. Creswell, J. (2013). Qualitative inquiry & research design: Choosing among five approaches.

14. Denzin, N. K. (2018). The Sage handbook of qualitative research.

15. Díaz-Gilbert, M. (2018). The Ascetic Life of the Ultrarunner. Spiritus: *A Journal of Christian Spirituality, 18(2), 201-217.*

16. Gajdek, A., Kasprzyk, I., & Ortyl, B. (2024). The importance of landscape during long-distance running activity. *Sustainability*, *16*(2), 883.

17. Giorgi, A. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Duquesne university press.

18. Goddard K, Roberts C-M, Anderson L, Woodford L and Byron-Daniel J (2019) Mental Toughness and Associated Personality Characteristics of Marathon des Sables Athletes. Front. Psychol. 10:2259. doi: 10.3389/fpsyg.2019.02259

19. Gross, T. (2023). "Some People Smoke and Drink, I Run": Addiction to Running through an Ethnographic Lens. *Leisure Sciences*, *45*(7), 647-664.

20. Johansen, B., & Euchner, J. (2013). Navigating the VUCA world. *Research-Technology Management*, *56*(1), 10-15.

21. Hall, L. G. (2023). *Transitioning through injury: A phenomenological Approach for Ultra-Runners* (Doctoral dissertation).

22. Hanson, N., Madaras, L., Dicke, J., & Buckworth, J. (2015). Motivational differences between half, full and ultramarathoners. *Journal of Sport Behavior*, *38*(2).

23. Harman, B., Kosirnik, C., & Antonini Philippe, R. (2019). From social interactions to interpersonal relationships: influences on ultra-runners' race experience. *Plos one*, *14*(12), e0225195.Heinrich, Bernd. Science Washington Vol. 296, Iss. 5565, (Apr 5, 2002): 51

24. Hasman, A. (2023). Ultra-Mindset – Lessons from Ultrarunners. https://uphillathlete.com/trail-running/ultra-mindset-lessons-ultrarunners/

25. Hoffman, M.D., & Krishnan, E. (2013). Exercise behaviour of ultramarathon runners: baseline findings from the ULTRA Study. *J Strength Cond Res 27(11): 2939–2945*

26. Holt, N. L., Lee, H., Kim, Y., & Klein, K. (2014). Exploring experiences of running an ultramarathon. *The Sport Psychologist, 28(1), 22-35.*

27. Howard, D. (2023). Recovery Perceptions and Techniques of Ultramarathon Runners.

28. Husserl, E. (1931). Fenomenología y Antropología. 1931. *Anuario de Filosofía Jurídica y Social*.

29. Jaeschke, A. M. C., Sachs, M. L., & Dieffenbach, K. D. (2016). Ultramarathon runners' perceptions of mental toughness: A qualitative inquiry. *The Sport Psychologist*, *30*(3), 242-255.

30. Johansen, B., & Euchner, J. (2013). Navigating the VUCA world. *Research-Technology Management*, *56*(1), 10-15.

31. Knechtle, B., Enggist, A., & Jehle, T. (2005). Energy turnover at the Race Across AMerica (RAAM)-a case report. *International Journal of Sports Medicine*, *26*(06), 499-503.

32. Kazimierczak, M., Dąbrowska, A., Adamczewska, K., & Malchrowicz-Mośko, E. (2020). The impact of modern ultramarathons on shaping the social identity of runners. The case study of karkonosze winter ultramarathon. *International journal of environmental research and public health*, *17*(1), 116.

33. Knechtle, B., Rüst, C. A., Rosemann, T., & Lepers, R. (2012). Age-related changes in 100-km ultra-marathon running performance. *Age*, *34*, 1033-1045.

34. Knechtle, B., & Nikolaidis, P. (2015). Ultra-marathon running. *Dansk Sportsmedicin*, *19*(4), 6-10.

35. Krouse, RZ, Ransdell, LB, Lucas, SM, and Pritchard, ME (2011) . Motivation, goal orientation coaching, and training habits of women ultrarunners. *J Strength Cond Res 25(10): 2835–2842, 2011*

36. Lane, A. M., & Wilson, M. (2011). Emotions and trait emotional intelligence among ultra-endurance runners. *Journal of Science and Medicine in Sport*, *14*(4), 358-362.

37. Langbein, R. K., Martin, D., Allen-Collinson, J., Crust, L., & Jackman, P. C. (2021). "I'd got self-destruction down to a fine art": a qualitative exploration of relative energy deficiency in sport (RED-S) in endurance athletes. *Journal of sports sciences*, *39*(14), 1555-1564.

38. Lion, R., Burch, T., & Bolinger, A. (2024). Athletic identity and discretionary effort at work. *Organization Management Journal*.

39. Martinez-Gonzalez, B. (2021). *Sleep deprivation and ultra-endurance performance: assessment and countermeasures*. University of Kent (United Kingdom).

40. Meyer-Glitza, P. S., Langer, T., & Wieder, O. (2023). Non-Steroidal Anti-Inflammatory Drug Use in Endurance Sports: Balancing Performance and Health Implications-a Literature Review.

41. Miller, D. J., Bianchi, D., & Lastella, M. (2022). Running on empty: self-reported sleep/wake behaviour during ultra-Marathon events exceeding 100 miles. *European Journal of Investigation in Health, Psychology and Education*, *12*(7), 792-801.

42. Moustakas, C. (1994). Phenomenological research methods. *Thousand Oaks*.

43. Nilsson, H. (2020). Taking a Mindful Run with Murakami: A (hermeneutic) phenomenological approach. *Contemporary Buddhism*, *21*(1-2), 351-368.

44. Nicolas, M., Gaudino, M., Bagneux, V., Millet, G., Laborde, S., & Martinent, G. (2022). Emotional Intelligence in Ultra-Marathon Runners: Implications for Recovery Strategy and Stress Responses during an Ultra-Endurance Race. *International Journal of Environmental Research and Public Health*, *19*(15), 9290.

45. Noakes, T. D. (2006). The limits of endurance exercise. *Basic research in cardiology*, *101*, 408-417.

46. Ólafsdóttir, R., Sæþórsdóttir, A. D., & Tverijonaite, E. (2021). Running wild: Environmental attitudes of long-distance runners in the Icelandic highlands. *Mountain Research and Development*, *41*(3), R32-R39.

47. Patel, B., Schneider, N., Vanguri, P., & Issac, L. (2024). Effects of Education, Nutrition, and Psychology on Preventing the Female Athlete Triad. *Cureus*, *16*(3), e55380-e55380.

48. Patrick, H., & Williams, G. C. (2012). Self-determination theory: its application to health behavior and complementarity with motivational interviewing. *International Journal of behavioral nutrition and physical Activity*, *9*, 1-12.

49. Philippe, R. A., Rochat, N., Vauthier, M., & Hauw, D. (2016). The story of withdrawals during an ultra-trail running race: A qualitative investigation of runners' courses of experience. *The Sport Psychologist*, *30*(4), 361-375.

50. Pietkiewicz, I., & Smith, J. A. (2014). A practical guide to using interpretative phenomenological analysis in qualitative research psychology. *Psychological journal*, *20*(1), 7-14.

51. Polat, B., & Tezgeç, M. S. On the Re-Alienation Experiences of the Amateur Runners in Istanbul. *The Athens Journal of Sports*, 119.

52. Portelli, N. (2018). Breaking human limits: identifying the reasons which compel athletes to run ultra - distances. Junior College multi-disciplinary conference: research, practice and collaboration: *Breaking Barriers: annual conference 2018, Malta. 453-466*

53. Ribichini, E., Scalese, G., Cesarini, A., Mocci, C., Pallotta, N., Severi, C., & Corazziari, E. S. (2023). Exercise-Induced Gastrointestinal Symptoms in Endurance Sports: A Review of Pathophysiology, Symptoms, and Nutritional Management. *Dietetics*, *2*(3), 289-307.

54. Rochat, N., Gesbert, V., Seifert, L., & Hauw, D. (2018). Enacting phenomenological gestalts in ultra-trail running: an inductive analysis of trail runners' courses of experience. *Frontiers in psychology*, *9*, 2038.

55. Rochat, N., Hauw, D., Antonini Philippe, R., Crettaz von Roten, F., & Seifert, L. (2017). Comparison of vitality states of finishers and withdrawers in trail running: An enactive and phenomenological perspective. *PLoS One*, *12*(3), e0173667.

56. Roebuck, G. S., Urquhart, D. M., Che, X., Knox, L., Fitzgerald, P. B., Cicuttini, F. M., ... & Fitzgibbon, B. M. (2020). Psychological characteristics associated with ultra-marathon running: An exploratory self-report and psychophysiological study. *Australian Journal of Psychology, 72(3), 235-247.*

57. Roebuck, G. S., Fitzgerald, P. B., Urquhart, D. M., Ng, S. K., Cicuttini, F. M., & Fitzgibbon, B. M. (2018). The psychology of ultra-marathon runners: A systematic review. *Psychology of Sport and Exercise, 37, 43-58.*

58. Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences. Teachers college press.*

59. Simpson, D., Post, P. G., Young, G., & Jensen, P. R. (2014). "It's not about taking the easy road": The experiences of ultramarathon runners. *The Sport Psychologist, 28(2), 176-185.*

60. Smith, J. A. (2011). Evaluating the contribution of interpretative phenomenological analysis. *Health psychology review*, *5*(1), 9-27.

61. Smith, J. A., & Osborn, M. (2007). Pain as an assault on the self: An interpretative phenomenological analysis of the psychological impact of chronic benign low back pain. *Psychology and health*, *22*(5), 517-534.

62. Smith, R. S., Walsh, J., & Dement, W. (1998). Sleep deprivation and the race across America. *Journal of Sleep*, *22*(1), 303-304.

63. Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of business research*, *104*, 333-339.

64. Symons, I. K., Bruce, L., & Main, L. C. (2023). Impact of overtraining on cognitive function in endurance athletes: a systematic review. *Sports Medicine-Open*, *9*(1), 69.

65. Thornton, O. R., Ly, S., Colón, I., Cole, H., & Li, W. (2023). The Psychological Indicators of Success in Ultrarunning-A Review of the Current Psychological Predictors in Ultrarunning.

66. Thuany, M., Viljoen, C., Gomes, T. N., Knechtle, B., & Scheer, V. (2023). Mental health in ultra-endurance runners: a systematic review. *Sports Medicine*, *53*(10), 1891-1904.

67. Valentin, S., Pham, L. A., & Macrae, E. (2022). Enablers and barriers in ultra-running: A comparison of male and female ultra-runners. *Sport in Society*, *25*(11), 2193-2212.

68. Vizcarra-Parra, B., Ulloa-Mendoza, R., Avello-Viveros, C., Duran-Aguero, S., Carrasco-Castro, R., Parra-Soto, S., & Pizarro-Mena, R. (2024). The association between motivation and diet quality in older runners. *Nutrition and Healthy Aging*, *9*(1), 37-46.

69. Waśkiewicz, Z., Nikolaidis, P. T., Chalabaev, A., Rosemann, T., & Knechtle, B. (2018). Motivation in ultra-marathon runners. *Psychology research and behavior management*, 31-37.

70. Watkins, L., Wilson, M., & Buscombe, R. (2022). Examining the diversity of ultra-running motivations and experiences: A reversal theory perspective. *Psychology of Sport and Exercise*, *63*, 102271.

71. Watkins, R. (2017). *The Far Reaches of the Mind: Psychological Experiences That Contribute to Willpower and Perseverance of Runners During a 100-Mile Ultramarathon*. Alliant International University.

72. Weich, C., Schüler, J., & Wolff, W. (2022). 24 Hours on the Run—Does Boredom Matter for Ultra-Endurance Athletes' Crises? *International journal of environmental research and public health, 19(11), 6859.*